

WHAT IS CLAIMED IS:

Subb27  
1. A method of designing a semiconductor circuit having clock trees, the method comprising the steps of:

generating a netlist;

5 inserting a plurality of delay gates onto said netlist;  
place;

a  
a  
generating ~~said~~ clock trees which satisfy a constraint of  
a timing in said clock ~~tree~~ <sup>tree</sup>;  
route;

10 manually adjusting a skew between said clock trees by  
deleting some of said ~~inserted~~ <sup>inserted</sup> delay gates based on the constraint  
of ~~the~~ timing between said clock trees;

examining the skew between said clock trees;

a  
a  
a  
15 determining whether ~~the~~ constraint of the timing is  
satisfied ~~or not~~; and

a  
a  
making a minimum change in ~~the~~ place and route in association  
with ~~the~~ insertion of said delay gates.

2. The method of designing a semiconductor circuit according  
20 to claim 1, wherein in the step of place, a plurality of delay  
gates on said clock line are collectively placed.

3. The method of designing a semiconductor circuit according  
to claim 1, wherein in the step of place, a plurality of delay  
25 gates on said clock line are collectively placed and a large region

is assured.

4. The method of designing a semiconductor circuit according to claim 2, wherein in <sup>manually</sup> ~~the step of~~ adjusting <sup>skew</sup> between trees,

5 said delay gates at ~~the~~ first and last stages among said ~~inserted~~ <sup>inserted</sup> delay gates <sup>are</sup> not ~~regarded as~~ targets to be deleted.

5. The method of designing a semiconductor circuit according to claim 3, wherein in <sup>manually</sup> ~~the step of~~ adjusting <sup>skew</sup> between trees,

10 said delay gates at ~~the~~ first and last stages among said ~~inserted~~ <sup>inserted</sup> delay gates <sup>are</sup> not ~~regarded as~~ targets to be deleted.

6. A semiconductor circuit having clock trees, said semiconductor circuit being designed using a designing method  
15 comprising the steps of:

generating a netlist;

inserting a plurality of delay gates onto said netlist;  
place;

generating ~~said~~ clock trees which satisfy a constraint of  
20 <sup>tree</sup> timing in said clock ~~tree~~;

route;

manually adjusting <sup>skew</sup> between said clock trees by  
deleting some of said ~~inserted~~ <sup>inserted</sup> delay gates <sup>based</sup> on the constraint  
of ~~the~~ timing between said clock trees;

25 examining the skew between said clock trees;

a  
a  
a  
a  
determining whether ~~the~~ constraint of the timing is  
satisfied ~~or not~~; and

making a minimum change in ~~the~~ place and route in association  
with ~~the~~ insertion of said delay gates.

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